NOTE XIII.

ON SOME SPECIES OF GELASIMUS LATR. AND MACROPHTHALMUS LATR.

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Gelasimus vocans Rumph.

Milne Edwards, Observ. sur la classification des Crustacés, 1852, pag. 145. Hilgendorf, in Baron von der Decken's Reise, pag. 83.

In the collection of our Museum there are specimens of this species from the Indian Archipelago (Celebes, Amboina, Ceram and Java) and from the island of Nossi-Bé near Madagascar, which entirely agree with one another. The median furrow of the front however is never so narrow and small as has been figured by Milne Edwards (l. c. pl. III, fig. 4). This species may be distinguished at first sight by the characteristical shape of the larger hand, and is distributed throughout the Indo-Pacific Region from Zanzibar to Hongkong and the Fiji Islands.

Gelasimus marionis Desm.

Milne Edwards, l. c. pag. 145, pl. III, fig. 5.

This species has almost the same distribution as *Gel. vocans*, our Museum containing specimens from Nossi-Faly, Java, Makassar and Padang. It is recorded by Milne Edwards from the coast of Malabar. It differs from *Gel. vocans* by the shape of the larger hand; the inner margin of the immobile finger curves upwards, and is but feebly toothed, the inner margin of the upper finger almost *straight*, not arcuate and armed with numerous equal very small teeth; the granular crest on the internal surface of the hand near the articulation of the wrist is *much feebler*, and the crest that is found near the articulation of the upper finger in *Gel. vocans*, does not occur in the other species; for the rest, the inner surface of the hand is a little granulated. In one specimen the larger hand is very small: the breadth of the carapace of this specimen (the distance between the external orbital angles) is 23 mm. and the length of the larger hand but 22 mm. In a typical specimen however that has a breadth of 24 mm., the length of the larger hand is 45 mm.

Gelasimus Dussumieri M. Edw.

Milne Edwards, l. c. pag. 148. Pl. IV, fig. 12.

Some specimens of a *Gelasimus* have been collected by Messrs. Pollen and van Dam at Nossi-Faly and described by Mr. Hoffmann under the name of *Gelas. Dussumieri* Edw. (Hoffmann, Crust. de Madagascar, pag. 17). These specimens indeed agree entirely with specimens from Zanzibar, described by Hilgendorf under that name (Hilgendorf, l. c. pag. 84, Taf. IV, fig. 1), but I am not convinced that these specimens belong to *Gel. Dussumieri*, because the shape of the front seems to me to be somewhat different: only a comparison with typical specimens of *Gel. Dussumieri* may decide in this question. The Museum contains another single male specimen from the Moluccas, collected by Macklot; this specimen agrees in many respects with the Nossi-Faly specimens, but the front is more spatulate and the lateral margins of the carapace are less arched, but straight and directed very obliquely backward. I think therefore this specimen to belong to another species.

As has been remarked already by Mr. Hoffmann (l. c.), *Gelasimus arcuatus* de Haan is quite another species than that which has been described by Hilgendorf and himself under the name of *Gelas. Dussumieri* Edw.

Gelasimus annulipes M. Edw.

Milne Edwards, l. c. pag. 149. Pl. IV, fig. 15.

We have received specimens of this species from Java, Amboina, Makassar and New-Guinea and from the Island of Nossi-Bé; it is recorded from the whole Indo-Pacific Region by Mr. Miers (Zoology of Rodriguez, Crustacea, pag. 4). This species may be distinguished from the closely allied *Gelas. lacteus* de Haan by the shape of the carapace: the external orbital angle being directed straightly forward in this species, but *obliquely* outward in *Gelas. annulipes;* the distal extremity of the index being arched and without a tooth in *Gelas. lacteus*, but always provided with a tooth in *Gelas. annulipes. Gelas. lacteus* de Haan has been found in Japan and China, the Museum containing many beautiful specimens from Amoy.

Macrophthalmus carinimanus Latr.

Milne Edwards, l. c. pag. 156. Nec: *Macrophth. brevis* Herbst.

The collection contains 6 specimens, collected in the seas of the island of Celebes. This species is quite different from *Macrophth. brevis* Herbst, but is closely allied to *Macrophth. dilatatus* de Haan. It may be distinguished from this Japanese species by the following characteristics: the carapace is proportionally somewhat broader and shorter, though its upper surface presents almost the same structure; yet the transverse furrows on the antero-lateral regions are always deeper, but the two verrucous tubercles on the branchial regions are found in both species. The point of the external orbital angle is directed obliquely forward and projects as much as the upper margin of the orbits, while it is situated behind that margin in *Macrophth. dilatatus.* But these two species may be distinguished immediately by the shape of the chelipedes: the upper margin of the arm being provided with some (3 or 4) small sharp teeth in *Macrophth. dilatatus*, but only minutely granulated in the other species. The hands of *Macrophth. carinimanus* are *very slender*, with an almost smooth outer surface; on the lower part of it passes the strong crest that proceeds upon the immobile finger; the upper margin is however somewhat minutely granulated, the inner surface for a part very hairy; the fingers are much shorter than the palm of the hand. In *Macrophth. dilatatus* on the contrary the hands are not very slender, with a *very granulated* upper surface, which is separated by a transverse ridge of larger granules from the smooth middle part of the outer surface of the hand; the granular strong crest on its lower part occurs also in this species and borders the smooth middle part below; the fingers are nearly as long as the palm and the index is more arched.

In one specimen, a male, the two anterior teeth of the lateral margins of the carapace are situated closely to one another and almost in contact.

Breadth of carapace of a male of *Macrophth. carinimanus* (the distance between the points of the second lateral teeth) $22^1/_2$ mm., length (without the front) $8^1/_2$ mm.; length of the hands 20 mm.

Breadth of carapace of a male of *Macrophth. dilatatus* 27 mm., length $11^1/_2$ mm., length of the hands 19 mm.

Macrophthalmus brevis Herbst.

Herbst, Krabbe und Krebse, Taf. LX, fig. 4. — Hilgendorf, l. c. pag. 86, Taf. III, fig. 4.

The Museum contains a fine male *Macrophthalmus*, found by Messrs. Pollen and van Dam in the bay of Pasandava in Madagascar, which has not been described by Mr. Hoffmann in his work on the crustaceans, collected by these travellers. This species has been described and very well figured by Mr. Hilgendorf as belonging to *Macrophth. brevis* Herbst; he had found this by a comparison with the authentic specimen in the Berlin Museum. This species however is quite different from *Macrophth. carinimanus* Latr., which was regarded by Mr. Hilgendorf erroneously as identical with Herbst's *Cancer brevis.* I find the following differences: The carapace of *Macrophth. brevis* is comparatively a little less enlarged and longer; the transverse furrows on the antero-lateral regions are *less deep* and the two verrucose tubercles on the branchial regions are *wanting; the second lateral tooth of the carapace is larger and projects more outward than the external orbital angle*, which is almost in contact with it. For the rest the carapace is very minutely granulated. The arms and the hands of the chelipedes are *less elongated*, *less slender;* the hands are comparatively much higher and the lower margin of the immobile finger is in a line with the lower margin of the palm of the hand; the tooth of the index is placed *transversely*, in *Macrophth. carinimanus* it is *angular* and sloping backward. The upper margin of the hands is provided with some spiniform tubercles in this species, but slightly granular in *carinimanus;* the minutely granulated crest near the lower margin of the hand is found in both species.

Breadth of carapace (between the second lateral teeth) $22^1/_2$ mm., length $9^1/_2$ mm., length of the hand $15^1/_2$ mm.

Euplax boscii Aud.

Milne Edwards, l. c. pag. 160. Krauss, Süd-African. Crust. p. 40, Pl. II, fig. 5. Alph. Milne Edwards, Nouv. Arch. t. IX, p. 281.

The Museum contains a beautiful male specimen from Celebes, a female from Amboina, another female from the Indian Ocean, and a young male specimen from New-Caledonia, presented by Mr. Alph. Milne Edwards. Breadth of carapace of the male specimen from Celebes $14\frac{1}{2}$ mm., length $10\frac{1}{2}$ mm.: the lateral margins of the carapace as also the legs are very hairy and covered with many long brown hairs. This species may be distinguished from the closely allied *Macrophth. quadratus*, that we received also from Mr. Milne Edwards, by the shape of the lateral teeth of the carapace and the sculpture of the lower orbital margin.